

Listing of Claims:

Claim 1. (Previously presented) A transformer having at least one primary winding and one secondary winding wound about a common axis comprising:

a first bobbin member including a first body portion defining a first hollow region, axially spaced walls extending radially away from the first body portion, and a tubular portion extending away from the first body portion; and

a second bobbin member including a second body portion defining a second hollow region, the second body portion comprising two sections at the periphery of the second hollow region forming a recess separate from the second hollow region, said recess shaped such that said tubular portion is positioned therewithin for joining the first and second bobbin members, axially spaced walls extending radially away from the second body portion, and a flange on one of said axially spaced walls of the second bobbin member and extending away from another of the axially spaced walls of the second bobbin member; and

wherein the first bobbin member is disposed adjacent to the second bobbin member and is partially enclosed by the flange, said primary and secondary windings respectively wound about said first and second body portions, and wherein the first and second hollow regions are shaped to receive a core inserted therewithin.

Claim 2. (Previously presented) A transformer having at least one primary winding and one secondary winding wound about a common axis comprising:

a first bobbin member including a first body portion defining a first hollow region, and axially spaced walls extending radially away from the first body portion; and

a second bobbin member including a second body portion defining a second hollow region, axially spaced walls extending radially away from the second body portion, and a flange on one of said axially spaced walls of the second bobbin member and extending away from another of the axially spaced walls of the second bobbin member; and

wherein the first bobbin member is disposed adjacent to the second bobbin member and is partially enclosed by the flange, said primary and secondary windings respectively wound

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about said first and second body portions, and wherein the flange includes two flange portions substantially perpendicular to each other.

Claim 3. (Previously presented) The transformer of claim 1 further comprising a substantially planar conductive shield disposed between the first bobbin member and the second bobbin member.

Claim 4. (Previously presented) The transformer of claim 2 further comprising a ferrite core disposed within the first and second hollow regions.

Claim 5. (Previously presented) The transformer of claim 2 wherein at least one of the walls in each of the first and second bobbin members comprises a slot for receiving the wires of the primary or secondary winding.

Claim 6. (Previously presented) The transformer of claim 2 wherein each of first and second bobbin members comprises a plurality of pins connected to the corresponding winding for coupling the transformer to an external electrical circuit.

Claim 7. (Previously presented) The transformer of claim 2 wherein the second bobbin member includes a structure for receiving a printed circuit board (PCB), and wherein the structure is disposed on the flange such that the PCB is disposed parallel to the walls of the first bobbin member and perpendicular to the common axis.

Claim 8. (Previously presented) The transformer of claim 2 wherein the second bobbin member includes a structure for receiving a printed circuit board (PCB), and wherein the structure is disposed on a side region of the transformer such that the PCB is disposed parallel to the walls of the first bobbin member and perpendicular to the common axis.

Claim 9. (Previously presented) The transformer of claim 1 wherein the tubular portion has a rectangular cross-section.

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Claim 10. (Previously presented) A transformer having at least one primary winding and one secondary winding wound about a common axis comprising:

a first bobbin member including a first body portion defining a first hollow region, axially spaced walls extending radially away from the first body portion, and a structure adapted to receive a printed circuit board (PCB) so that the printed circuit board is disposed parallel to the walls of the first bobbin member and perpendicular to the common axis; and

a second bobbin member including a second body portion defining a second hollow region which is aligned with the first hollow region, and axially spaced walls extending radially away from the second body portion, and

wherein the first bobbin member is disposed adjacent to the second bobbin member, the primary and secondary windings respectively wound about said first and second body portions.

Claim 11. (original) The transformer of claim 10 further comprising a core, wherein the core passes through the first and second hollow regions.

Claim 12. (original) The transformer of claim 10 wherein the first bobbin member further includes a tubular portion extending away from the first body portion and is disposed to receive a core passing through the first hollow region.

Claim 13. (Previously presented) The transformer of claim 12 wherein the second body portion comprises two sections forming a recess, the recess being shaped for receiving the tubular portion.

Claim 14. (Previously presented) The transformer of claim 10 wherein the second bobbin member further comprises a plurality of pins connected to the corresponding winding for coupling the transformer to an external electrical circuit.

Claim 15. (Previously presented) A transformer comprising:

a first bobbin member including a first body portion defining a first hollow region, axially spaced walls extending radially away from the first body portion, a flange for increasing creepage distance between a core disposed within the first hollow region and a coil disposed

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between the axially spaced walls, and a tubular portion extending away from the first body portion; and

a second bobbin member including a second body portion defining a second hollow region, the second body portion comprising two sections at the periphery of the second hollow region forming a recess separate from the second hollow region, said recess shaped such that the tubular portion is positioned therewithin for joining the first and second bobbin members, and axially spaced walls extending radially away from the second body portion, and

wherein the first and second hollow regions are shaped to receive a core inserted therewithin.

Claim 16. (Previously presented) A transformer assembly adapted to receive at least one primary winding and one secondary winding wound about a common axis comprising:

a first bobbin member including a first body portion defining a first hollow region, axially spaced walls extending radially away from the first body portion, and a tubular portion extending away from the first body portion; and

a second bobbin member including a second body portion defining a second hollow region, the second body portion comprising two sections at the periphery of the second hollow region forming a recess separate from the second hollow region, said recess shaped such that the tubular portion is positioned therewithin for joining the first and second bobbin members, axially spaced walls extending radially away from the second body portion, and a flange mounted on one of said axially spaced walls of said second bobbin member and extending away from another of said axially spaced walls of said second bobbin member; and

wherein the first bobbin member is disposed adjacent to the second bobbin member and is partially enclosed by the flange, said primary and secondary windings respectively wound about said first and second body portions, and wherein the first and second hollow regions are shaped to receive a core inserted therewithin.

Claim 17. (Previously presented) A transformer having at least one primary winding and one secondary winding wound about a common axis comprising:

a first bobbin member including a first body portion defining a first hollow region, axially spaced walls extending radially away from the first body portion, and a first structure

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adapted to receive a first printed circuit board (PCB) so that the first printed circuit board is disposed parallel to the walls of the first bobbin member and perpendicular to the common axis; and

a second bobbin member including a second body portion defining a second hollow region which is aligned with the first hollow region, axially spaced walls extending radially away from the second body portion, and a second structure adapted to receive a second printed circuit board (PCB) so that the second printed circuit board is disposed parallel to the walls of the second bobbin member and perpendicular to the common axis; and

wherein the first bobbin member is disposed adjacent to the second bobbin member, the primary and secondary windings respectively wound about said first and second body portions; and wherein the first and second structures are offset such that the first PCB and second PCB are on different planes so as to provide additional creepage distance between the primary and secondary windings.